AUSTRALIAN PLANT DISEASE RECORDER

Volume 13, Number 4 October, 1961

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For confidential circulation to plant pathologists in Australia

PLEASE DO NOT ABSTRACT

COMMONWEALTH MYCOLOGICAL INSTITUTE
23 FEB 1962

FRUIT

APPLE SCAB:

Marked variation in apple scab (Venturia inaequalis) ascospore discharge has been recorded in Adelaide Hills apple areas over the past two seasons.

In the spring of 1960, it was ascertained that perithecia matured in late August, and discharge was first recorded with a Hirst spore trap at early green tip. Following prolonged wet weather in September-early October, peak ascospore discharge occurred in late September and no ascospores were trapped after October.

By way of contrast, in 1961, detailed examination of infected leaves showed that perithecia did not mature until mid-September. Infected leaves which fell in January, March, April and May were collected and stored in an apple orchard. Spore discharge was obtained from samples of each of these months in wind tunnel tests in the laboratory.

Maturation of the perithecia in the stored leaves coincided with the trapping of the first ascospore for the season in the Hirst trap. However, in the three weeks since that time, only 6 points of rain have been recorded, and this has been insufficient to release further spores in numbers which could be detected by the trap. Apple trees are now at average full bloom.

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CITRUS VIRUS INDEXING:

As part of the N.S.W. Department of Agriculture Citrus Improvement Committee's work a start was made two years ago to index all scaly butt (Exocortis)- free mother tree selections for psorosis and xyloporosis. The test seedlings were grown in nursery rows at the Citrus Experiment Station, Somersby, and were inoculated by budding. No evidence of psorosis had been seen on any of these trees. In order to determine whether psorosis foliage symptoms would be produced under the conditions at Somersby some indicator seedlings were budded with material known to carry this virus. It has not been possible to detect foliage symptoms in the spring growth made by these trees during the past 2 years and future psorosis indexing will be done under glasshouse conditions.

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RUST OF PRUNUS SPP. IN AUSTRALIA:

The common leaf rust of stone fruit trees in Australia has usually been referred to as Puccinia pruni-spinosae Pers. This species is in a fact a member of the genus Tranzschelia and its correct name is T. pruni-spinosae (Pers.) Diet.

During the current revision of the check list of plant diseases recorded in N.S.W., several specimens of rust on Prunus spp. from N.S.W. have been examined and it has been found that they are all much more similar to the species T. discolor (Fckl.) Tranz. & Litv. than to T. pruni-spinosae. T. discolor is characterised by its unequal celled teleutospores, the basal cell being narrower, paler in colour and much less roughened (sometimes almost smooth) than the apical cell. The teleutospores of T. pruni-spinosae on the other hand are composed of two equal cells, both of which are reddish-brown in colour and prominently spiny. This distinction has been pointed out by Dunegan (Phytopathology 28, 411-427, 1938) and has been seen in the present case by comparing the local rust with exsiccati specimens of T. pruni-spinosae from U.S.A.

There is thus no evidence to suggest that the rust T. pruni-spinosae is present in N.S.W. and most probably it does not occur in Australia. In order to see if this is so, I would be very glad to receive specimens of rust of Prunus spp., both fruiting and ornamental species, from other States to determine the identity of the rust species present. Leaves bearing teleutosori are required as T. discolor and T. pruni-spinosae are very similar in the uredospore stage.

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ORNAMENTALS

ENTOMOSPORIUM SP. ON RAPHIOLEPIS DELACOURI:

The evergreen shrub Raphiolepis delacouri, which is commonly grown in Melbourne home gardens, is sometimes attacked by a destructive leaf spotting disease in the winter months. In severe cases defoliation occurs. However, usually, only the oldest leaves which are most severely affected fall.

Microscopic examination of the centre of the leaf spots has shown the presence of the conidia of the fungus Entomosporium sp., probably Entomosporium maculatum Rev. (Fabraea maculata (Rev.) Atk.). R.D. Raabe & H. N. Hansen (Phytopathology 45, 55, 1955) have previously recorded this fungus on Raphiolepis indica in California and it is also known on this species in New South Wales (Anon, Agric. Gaz. N.S.W. 59, 32-36, 1946).

The only previous report of this fungus on Raphiolepis delacouri is that of Andre who reported it in Argentina (U.S.D.A. 1935, Bureau of Plant Quarantine Service and Regulatory Announcements. List of intercepted plant pests, 1934, 84 p.).

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WHITE RUST DISEASE OF GERBERAS:

This disease was first recorded in Adelaide in March, 1960.

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MISCELLANEOUS

CLEAN AIR CONFERENCE:

This conference is to be held at the University of New South Wales from 19th-21st February, 1962, and further information may be obtained from Dr. J.L. Sullivan, Conference Secretary, Department of Public Health, P.O. Box 31, George Street North, Sydney.